WHAT IS CLAIMED IS:

1. A method of forming a microarray of discrete polypeptide regions on a solid support, where each discrete region in the microarray has a selected polypeptide, said method comprising,

(a) loading an aqueous solution of a selected polypeptide in a reagent-dispensing device having an elongate capillary channel adapted to hold a quantity of the reagent solution and having a tip region at which the solution in the channel forms a meniscus,

(b) tapping the tip of the dispensing device against a solid support at a defined position on the surface, with an impulse effective to break the meniscus in the capillary channel and deposit a selected volume between 0.002 and 2 nl of solution on the surface, and

(c) repeating steps (a) and (b) until said microarray is formed.

2. The method of claim 1, wherein steps (a) and (b) are repeated until the microarray has about 100 or more discrete regions of distinct polypeptide strands per cm^2 of solid support.

3. The method of claim 1, wherein steps (a) and (b) are repeated until the microarray has about 1000 or more discrete regions of distinct polypeptide strands per cm^2 of solid support.

4. The method of Claim 1, wherein said polypeptides are immunological receptors.

5. The method of Claim 4, wherein said immunological receptors are antibodies.

6. The method of Claim 1, wherein said polypeptides are antigens.

7. The method of Claim 1, wherein said solid support comprises a cationic film capable of binding said polypeptide.

8. The method of Claim 1, wherein said polypeptides are at least 50 amino acids in length.

9. The method of Claim 1, wherein said polypeptides retain the binding properties of the native polypeptide conferred by the three-dimensional structure.

10. A microarray of polypeptides produced by the method of:

(a) loading an aqueous solution of a selected polypeptide in a reagent-dispensing device having an elongate capillary channel adapted to hold a quantity of the reagent solution and having a tip region at which the solution in the channel forms a menisous,

(b) tapping the tip of the dispensing device against a solid support at a defined position on the surface, with an impulse effective to break the meniscus in the capillary channel and deposit a selected volume between 0.002 and 2 nl of solution on the surface, and

(c) repeating steps (a) and (b) until said microarray is formed.

11. The microarray of polypeptides according to Claim 9, wherein said microarray comprises 100 or more discrete regions of distinct polypeptide strands per cm^2 of solid support.

12. The microarray of polypeptides according to Claim 9, wherein said microarray comprises 1000 or more discrete regions of distinct polypeptide strands per cm^2 of solid support.

13. The microarray of polypeptides according to Claim 9, wherein said polypeptides are immunological receptors.

14. The microarray of polypeptides according to Claim 11, wherein said immunological receptors are antibodies.

15. The microarray of polypeptides according to Claim 9, wherein said polypeptides are antigens.

16. The microarray of polypeptides according to Claim 9, wherein said solid support comprises a cationic film capable of binding said polypeptide.

17. The microarray of polypeptides according to Claim 9, wherein said polypeptides are at least 50 amino acids in length.

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18. The microarray of polypeptides according to Claim 9, wherein said polypeptides retain the binding properties of the native polypeptide conferred by the three-dimensional structure.

19. A method of simultaneously detecting the presence of multiple protein-binding ligands in a sample, the method comprising:

contacting said sample with a microarray of polypeptides, wherein said microarray comprises 100 or more discrete regions of distinct polypeptide strands per cm^2 of solid planar support;

washing said support free of unbound sample; and

detecting the presence of bound ligands.

20. The method of Claim 19, wherein the ligands present in said sample are labeled with a detectable label.

21. The method of Claim 20, wherein said detectable label is a fluorochrome.

22. The method of Claim 20, further comprising contacting said microarray with a second sample comprising ligands labeled with a second detectable label.

23. The method of Claim 22, wherein said second detectable label is a fluorochrome.

24. The method according to Claim 19, wherein said sample is a clinical sample of a physiological fluid.

25. The method according to Claim 24, wherein said physiological fluid is blood or a derivative thereof.

26. The method of Claim 19, wherein said sample is a cell culture supernatant.

27. The method of Claim 19, wherein said sample is a cell lysate.

28. The method according to Claim 19, wherein said polypeptides are antibodies.

29. The method of Claim 19, wherein said polypeptides are antigens.

30. The method of Claim 19, wherein said polypeptides are at least 50 amino acids in length.